PATENT
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IN THE U.S. PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of	Appeal No.
Lauri LOVEN et al.	Conf. 8635
Application No. 10/529,243	Group 2165
Filed March 25, 2005	Examiner K. Buckingham

A METHOD OF AND A SYSTEM FOR ERROR CORRECTION OF SERVICE REQUESTS IN AN INFORMATION SYSTEM

APPEAL BRIEF

MAY IT PLEASE YOUR HONORS:

(i) **Real Party in Interest**

The real parties in interest in this appeal are the inventors, Loven, Lauri (Espoo, FI); Hyvonen, Jorkki (Helsinki, FI); Tykka, Henri (Espoo, FI); Laurila, Jukka (Espoo, FI); Kauppinen, Hannu (Helsinki, FI); Salento, Pasi (Espoo, FI); Heikkinen, Timo; (Helsinki, FI).

(ii) **Related Appeals and Interferences**

None.

(iii) **Status of Claims**

Claim 8-17 are pending. Claims 1-7 were previously cancelled. This appeal is taken from the final rejection of claims 8-17.

(iv) **Status of Amendments**

All Amendments have been entered.

(v) **Summary of Claimed Subject Matter**

Independent claim 8 is directed to a method of processing a service requests from a common access point from at least two service source offerings (Figs. 1 and 2, and page 3, lines 9-14).

Claim 8 recites a method of processing service requests (Fig. 1, page 3, lines 9-14) in an information system (Fig. 2) including a common access point (Fig. 2) and at least two service sources offering services Fig. 2, elements 2-5, page 7, lines 1-5), said method comprising: receiving a service request at said access point (Fig. 1, block A, page 3, lines 19 and 20) analyzing said service request at said access point (Fig. 1, block B, page 3, lines 19-32) in order to identify a predetermined keyword indicating a service source offering the requested service(Fig. 1, block C, page 3, lines 27-32) forwarding said service request to a service source identified in said analysis (Fig. 1, block D, page 3, line 33 through page 4, line 5) analyzing said service request at said service source (Fig. 1, block E, page 4, lines 6-11) in order to identify the requested service (Fig. 1, block F), providing said identified service (Fig. 1, block G, page 4, lines 12-16), storing, in a memory (Fig. 2, element 7) containing only service requests whose contents are correct, said service request if the service request has led to successful identification of the requested service (Fig. 1, block H, page 4, lines 16-19), initiating an error correction process to correct the received service request by utilizing service requests stored in said memory containing only service requests whose contents are correct (Fig. 1, block J, page 4, lines 29-34), if said analyzing at said access point or said analyzing at said service source fails for the received service request, as no service source or

no service can be identified (Fig. 1, Blocks C and F, page 4, lines 19-23) and repeating said analyzing at the access point and/or service source for the corrected service request, and providing an identified service to the source of the service request if a service can be identified (Fig. 1, page 5, lines 19-22).

Dependent claim 9 depends from claim 8 and is drawn to defining how the received service request is corrected.

Claim 9 recites the correction of a received service request (Fig. 1, block A) is carried out by comparing the contents of the received service request with the contents of the stored service requests (page 5, lines 1-16), selecting the stored service request which, based on the comparison, is closest to the received service request (page 5, lines 1-16), and substituting at least a part of the contents of the received service request with at least a part of the contents of the selected service request(page 5, lines 1-16).

Claim 10 recites an information system (Figs. 2 and 3) comprising: subscriber stations (Fig. 2, element MS, page 5, line 21-34) at least two service sources providing a respective service to subscriber stations of the system (Fig. 2, elements 2-5, page 3, lines 24-26), and an access point (Fig. 2, element 1, page 6, line 35) providing said subscriber stations with access to services offered by said service sources (page 7, lines 1-5), said access point being arranged to analyze a service request received from a subscriber station (Fig. 1, block B, page 3, lines 19-32) in order to identify a predetermined keyword indicating the service source offering the requested service (Fig. 1, block C, page 3, lines 27-32), and to forward said service request to the service source offering said service (Fig. 1, block D, page 3, line 33 through page 4, line 5), said service sources being connected to the access point in order to receive a service request forwarded by said access point (Fig. 2, elements 11 and 12, page 7, lines 4-9), and arranged to analyze a received service request (Fig. 1, block E, page 4, lines 6-11) in order to identify the requested service (Fig. 1, block F) and to provide the subscriber station with the requested service (Fig. 1, block G, page 4, lines 12-16), said system further comprising: a memory (Fig. 2, element 7) for storing (Fig. 1, block H, page 4, lines 16-19) only service requests which have led to successful identification of the requested service and whose contents are correct (Fig. 1, page 5, lines 19-22), and an error correction

device (Fig. 2, element 6) arranged to correct a received service request by utilizing the service requests stored in the memory (Fig. 1, block J, page 4, lines 29-34), if said analyzing at said access point or said analyzing at said service source fails for the received service request, as no service source or no service can be identified (Fig. 1, Blocks C and F, page 4, lines 19-23), wherein said access point is arranged to process the corrected service request by carrying out said analyzing and forwarding to a service source (Fig. 2, element 11), and said service sources are arranged to carry out said analyzing in order to identify the requested service and to provide the service to the subscriber station having transmitted the service request, when receiving such a corrected service request (page 5, lines 17-23).

Claim 15 recites an error correction device (Fig. 2, element 6) arranged to correct (Fig. 1, block J, page 4, lines 29-34) a received service request (Fig. 1, blocks A) by utilizing information stored in a memory (Fig. 2, element 7) containing only service requests whose contents are correct(Fig. 1, block H, page 4, lines 16-19), said error correction device (Fig. 2, element 6) is arranged to receive (Fig. 1, block A) and store (Fig. 1, block H), in said memory (Fig. 2), service requests which have led to successful identification of the requested service and whose contents are correct (Fig. 1, block H, page 4, lines 16-19), correct the contents of a received service request by utilizing the service requests stored in the memory (Fig. 1, block J, page 4, lines 29-34), and transmit said corrected service request for further processing (Fig. 2, element 11, page 7, lines 4-5).

(vi) **Grounds of Rejection to be Reviewed on Appeal**

The issue on appeal is whether claims 8-17 would have been obvious, in the meaning of 35 USC §103(a), based on Sugikawa, U.S. Patent No. 5,949,772 in view of Amano, U.S. Patent No. 2002/0120647.

(vii) **Arguments**

Claims 8-17 would not have been obvious based on Sugikawa in view of Amano.

The Applicant makes a substantially similar argument as that submitted on March 12, 2008.

Sugikawa discusses that upon the withdrawal of a device from a network a new service providing device is selected among other devices.

Amano discusses the detection of errors in mark-up language data and the output of corrected data.

Claim interpretation

On page 12 of the Office Action of December 12, 2008, in the *Response to Arguments,* it is asserted that "the specification provides no definition of the term 'correct' so examiner interprets that since the information is in the memory, that it's correct."

However, the present application deals specifically with a solution of correcting service requests that contain an error by substituting content of a service request with an error with the content of a correct service request stored in a memory, as explained on original (WO 2004/030325) page 5 lines 1-19, for instance.

Regarding the "definition" of the term "correct", it seems that page 2 lines 16-25, for instance, give such a

definition. Here it is explained that

> The error correction capabilities make it possible for the information system to correct service requests including errors such that the subscriber having transmitted a service request with an error will receive the desired service anyway. The solution of the independent claims involves a self-learning error correction capability. This is achieved as service requests which have led to a successful identification of the requested service are stored in a memory. This memory will thus include only those service requests whose contents are correct, as they have al/previously led to successful identification of the requested service. [Emphasis added]

Thus, service requests whose contents are correct are such service requests which lead (have led) to successful identification of a service available in the system. Therefore the specification does indeed define the term "correct".

Claim 8

On page 4 of the Office Action of December 12, 2008, the Office asserts that Sugikawa, col. 11 lines 31-34 disclose "analyzing said service request at said access point in order to identify a predetermined keyword indicating a service source offering the requested service," and col. 11, 41-65 disclose "forwarding said service request to a service source identified in said analysis," as in claim 8.

However, in Sugikawa it is explained that unit A receives a service request from a user (col. 11 lines 49 - 50), and that this service request is transmitted to all the devices on the network B, C, D and E (col. 12 lines 2-6 and 13-15). No

kind of analyzing to identify devices capable of providing the service is carried out, therefore the service request is transmitted also to devices C and E, even though these devices are not able to provide the service (col. 11 lines 46-47). Therefore Sugikawa fails to disclose the above recited features. The Office does not assert and the Applicants have not found that Amano discloses such a feature.

Sugikawa therefore relates to a solution which is fundamentally different as compared to the claimed invention, as a service request is forwarded to all devices of a network. In the claimed invention, however, the service request is analyzed in advance in order to identify a service source offering the requested service, after which the service request is forwarded to the identified source. In the claimed invention, in order to obtain a solution where also a service request containing a typing error can be forwarded to a correct service source, it is advantageous to utilize the claimed error correction. Such an error correction is, however, not needed or disclosed (as acknowledged in the official action) by Sugikawa, as the service request (with or without a typing error) in any case will be sent to all the other devices on the network.

Amano discusses a solution which is very different than the claimed invention. As shown in Figure 7 and the related description, a first computer 10 is used for generating application data 41 including correction information of a

document which is transmitted by a data transmission unit 30 to a second computer 20 (¶¶ 0074 and 0075). In order to be able to generate the original document without errors, the second computer analyses the received application data 41 which includes correction information, and detects or corrects errors in the document (¶ 0076). Such a solution does not involve an access point or a plurality of service sources, and therefore fails to teach or disclose the features of: analyzing a service request at an access point in order to identify a service source offering the requested service, and forwarding the service request to the identified source.

In addition, the error correction carried out by the utilized error correction devices is very different as compared to the claimed invention. In Amano a tag set is defined to mark out portions of documents that might otherwise be rewritten to include errors. Amano ¶ 0014, for instance explains that a tag set is defined for characters with similar shape or a similar character, for instance. In this way characters with a similar shape (such as minus and hyphen) can be identified as separate characters (¶ 0008).

Therefore the error prevention/detection/correction markup addition module 13 of the first computer 10 of Fig. 7 marks out the relevant portions, and subsequently the error detection/correction module 23 of the second computer 23 corrects the errors.

On page 4 of the Office Action of December 12, 2008, the Office acknowledges that Sugikawa does not disclose "initiating an error correction process to correct the received service request by utilizing service requests stored in said memory containing only service requests whose contents are correct, if said analyzing at said access point or said analyzing at said service source fails for the received service request, as no service source or no service can be identified," but instead asserts that Amano ¶¶ 0001-0020 do.

However, as the solution of Amano does not involve any access point which would analyze a service request as in the claimed invention, or which would initiate error Correction of the service request if the analyzing fails to identify a service source or service. Instead, Amano discloses that each and every document is automatically subjected to error correction at a receiving computer in order to identify possible tags that should be corrected in the received document.

Further on page 3 of the Office Action of December 12, 2008, its is asserted that Sugikawa, col. 11, lines 25-37 discloses "storing, in a memory containing only service requests whose contents are correct, said service request if the service request has led to successful identification of the requested service," as in claim 8.

However, Sugikawa always stores any request and does not analyze it prior to storing. Thus, it cannot be said that

the contents are correct in Sugikawa. The Office does not assert and the Applicants have not found that Amana discloses such a feature.

Claims 10 and 15

Claims 10 and 15 are system claim that while of a different statutory type than claim 1, recites similar features. Therefore, the arguments made as to claim 8 apply likewise to claims 10 and 15.

Claim 9

On page 5 of the Office Action of December 18, 2008, it is acknowledged that Sugikawa does not disclose "**substituting at least a part of the contents** of the received service request with **at least a part of the contents of the selected service request**," (Emphasis added) as in claim 9, but asserts that Amano ¶ 0023 does.

However, Amano ¶ 0023 discloses changing inputted data into XML tags. This is clearly shown in Amano Figs. 1 and 3, where the there is not a substitution of a received service request, but the creation of XML. The text its self (i.e. selected service request) is not substituted. It is kept the same and merely placed between a begin and end tag.

Conclusion

Appellants respectfully urge that the rejections on appeal should not be maintained, and respectfully requests that these rejections be reversed.

Respectfully submitted,

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(viii) Claims Appendix

8. A method of processing service requests in an information system including a common access point and at least two service sources offering services, said method comprising:

receiving a service request at said access point,

analyzing said service request at said access point in order to identify a predetermined keyword indicating a service source offering the requested service,

forwarding said service request to a service source identified in said analysis,

analyzing said service request at said service source in order to identify the requested service, providing said identified service,

storing, in a memory containing only service requests whose contents are correct, said service request if the service request has led to successful identification of the requested service,

initiating an error correction process to correct the received service request by utilizing service requests stored in said memory containing only service requests whose contents are correct, if said analyzing at said access point or said analyzing at said service source fails for the received service request, as no service source or no service can be identified, and

repeating said analyzing at the access point and/or service source for the corrected service request, and providing an identified service to the source of the service request if a service can be identified.

9. A method according to claim 8, wherein the correction of a received service request is carried out by

comparing the contents of the received service request with the contents of the stored service requests,

selecting the stored service request which, based on the comparison, is closest to the received service request, and

substituting at least a part of the contents of the received service request with at least a part of the contents of the selected service request.

10. An information system comprising:

subscriber stations,

at least two service sources providing a respective service to subscriber stations of the system, and

an access point providing said subscriber stations with access to services offered by said service sources, said access point being arranged to analyze a service request received from a subscriber station in order to identify a predetermined keyword indicating the service source offering the requested service, and to forward said service request to the service source offering said service,

said service sources being connected to the access point in order to receive a service request forwarded by said access point, and arranged to analyze a received service request in order to identify the requested service and to provide the subscriber station with the requested service, said system further comprising:

a memory for storing only service requests which have led to successful identification of the requested service and whose contents are correct, and

an error correction device arranged to correct a received service request by utilizing the service requests stored in the memory, if said analyzing at said access point or said analyzing at said service source fails for the received service request, as no service source or no service can be identified,

wherein said access point is arranged to process the corrected service request by carrying out said analyzing and forwarding to a service source, and said service sources are arranged to carry out said analyzing in order to identify the requested service and to provide the service to the subscriber station having transmitted the service request, when receiving such a corrected service request.

11. An information system according to claim 10, wherein said error correcting device is arranged to compare the contents of the received service request with the contents of the service requests stored in said memory, to select the stored service request which, based on the comparison, is closest to the received service request, and to substitute at least a part of the contents of the received service request with at least a part of the contents of the selected service request.

12. An information system according to claim 10, wherein said access point is connected to a mobile communication system, said subscriber stations are subscriber stations of the mobile communication system, and the service requests are messages transmitted with said subscriber stations via the mobile communication system to the access point.

13. An information system according to claim 11, wherein said access point is connected to a mobile communication system, said subscriber stations are subscriber stations of the mobile communication system, and the service requests are messages transmitted with said subscriber stations via the mobile communication system to the access point.

14. An information system according to claim 10, wherein at least one of said service sources provides a service involving transmission of data to a subscriber station which has transmitted a service request, said service source comprising a database containing data, and that said service source is arranged to analyze a received service request in order to identify the requested service, to retrieve, from said database, data associated with the identified service request, and to transmit said retrieved data via said information system to said subscriber station.

15. An error correction device arranged to correct a received service request by utilizing information stored in a memory containing only service requests whose contents are correct, said error correction device is arranged to

receive and store, in said memory, service requests which have led to successful identification of the requested service and whose contents are correct,

correct the contents of a received service request by utilizing the service requests stored in the memory, and

transmit said corrected service request for further processing.

16. The method according to claim 8, wherein the keyword is a user entered search term.

17. The method according to claim 8, wherein the requested service is human perceivable data.

(ix) **Evidence Appendix**

None.

(x) **Related Proceedings Appendix**

None.